

ABSTRACT OF THE INVENTION

The present invention relates to a method of making a preform which can restrain each member from deforming at the time of making, and a method of making an optical fiber with a smaller polarization mode dispersion by utilizing this preform. In the method of making a preform, the collapsing step carried out when making the preform is divided into at least two stages composed of a first step of forming a first collapsed body by collapsing a core rod member and a first cladding tube member, and a second step of forming a new collapsed body by collapsing the first collapsed body and a second cladding tube member. Also, in at least the first step, the collapsed body obtained is elongated, whereas such a plurality of stages of collapsing step and elongation of the resulting collapsed body reduce the outer diameter ratio of the outer member to the inner member to be collapsed, whereby the deformation resulting from the heating at the time of a single collapsing operation and the like is hard to occur. In an optical fiber obtained from thus manufactured preform, the core and cladding are effectively restrained from becoming noncircular, whereby the polarization mode dispersion characteristic, which becomes important in communications based on a WDM system, is improved in particular.